ELECTRIC POWER AND AIR TO SHIFT GEARS

Automatic Speed Changing Is a Strong Trend in 1914 Cars.

HAYNES ADDS FEATURE

Making Three Manufacturers Who Will Use Such Devices on New Cars.

Predictions of the automatically operated gear shift as the outstanding "trend" for 1914 in automobildom appear to be pretty well justified by recent factory announcements. The Haynes, in addition to the S. G. V. and Cadillac, will have electric gear changing devices next season. The Haynes device, like the others, operates the sliding gears of the selective transmission by means of solenoids. There is a button for each gear on the steering wheel and in order to engage any one it is necessary only to push the proper button and depress the clutch pedal. When the clutch is out a switch attached to the pedal makes contact and sends current from the battery to the solenoid indicated by the button, this solenoid (magnet) pulling the gear into engagement. As the switch between the solenoids and the battery can only be closed by depressing the clutch pedal, the danger of stripping gears is eliminated.

Electricity is not the only medium used to shift gears. A new device just put on the market employs compressed air to change speeds. Besides, it does other things, such as inflating tires, jacking up the car and cleaning the upholstery. It can be applied to old cars, the makers say, and need not be built into the machine at the time of assembly.

The device, which has been tested out, the inventor says, for two years, is simple. A small wheel with an indicator is on the steering wheel, and to shift gears the wheel is turned until the numeral indicating the desired gear appears in the indicator. This may be done at any time before the gear is desired to be engaged, as the change does not occur until the clutch pedal is pushed out. The indicator wheel operates a selector on the transmission, and the throwing out of the clutch admits air from the pressure tank to the gear shifter, the pump cylinder of which makes the change of gear through the selector.

No extra pressure is required on the clutch pedal, which is connected to the valves of the gear shifter and simply opens and closes them. Provision against the possibility of engaging two gears at once is made by drawing each gear to neutral each time the clutch is released, after which the gear indicated on the controller is engaged.

The pump is a combined motor and generator. It operates as a motor to start the engine at a gear ratio of ten to one, while when running as a compressor the ratio is two to one. This change of ratio is effected by means of gearing and a clutch governed by the air pressure. A foot button starts the pump working as a motor to start the engine. The pump has four cylinders, 2 by 2 inches, has a self-contained oiling system, and raises a pressure of 250 pounds, when the clutch automatically releases.

Values are provided on the dash to lock the system, and there is a connection to attach a hose for a pneumatic jack, for tire inflation or for cleaning the upholstery. As one of the advantages of the device is the eliminating of the levers from the front of the car, the company recommends that beside the gear lever being removed, the emergency brake lever also be taken off, and the brake interconnected with the service brake.

PILETTE TO BE AT ELGIN.

Belgian Will Drive a Bigger Mercedes-Knight in Races There.

Theodore Pilette, the Belgian racing driver, will be a competitor in the Elgin road races on August 29 and 30. He will drive a Mercedes-Knight car rather bigger than the machine with which he finished fifth in the recent 500 mile race. It is said too that Albert Guyot, who piloted the Sunbeam at Indianapolis, will try his hand at Elgin. Goux and Zuccarelli, the Peugeot drivers, are hoped for. Mercedes, Isotta and Mercer entries are pretty sure.

Incidentally the holders of the Silent Knight sleeve valve engine patents are going to build a special racing car, if not for this year then for 1914. This announcement is made by L. B. Kilbourne of Knight & Kilbourne.

Two Sports That Are Mates.

Golf and motoring are two sports that go well together. Most folks who belong to golf clubs find it most convenient to make use of their cars to reach the courses. Many men who hold memberships in clubs in Westchester county and out on Long Island as well find the opening of the New Rochelle-Glen Cove ferry line has been a great advantage to them in saving much time in getting from Long Island over to Westchester and back. It means a difference of fifty miles in travel and much time saved, as well.

Ford Company Has Its Tenth Birthday

THE Ford Motor Co. of Detroit celebrated its tenth anniversary on June 16, having been organized on June 16, 1903, following several years of experimental building by Henry Ford.

In its first year it employed an average of 311 employees, and turned out 1,708 cars. It now employs an average of 16,000 employees and builds 200,000 or more cars a year.

The company started with a capitalization of $100,000, and in 1908 became a $2,000,000 corporation. Its net earnings each year are many times the total capitalization of the company.

NEW WINTON CAR IS DRIVEN FROM LEFT SIDE

Other Points That Are Novel in This Marque Are Told in Detail.

In the 1914 Winton, of which the points are just announced, have been incorporated the left drive and centre control. Radius rods have been discarded. Everything above the axles has been lowered, and the effect of this change in suspension is instantly apparent. The electric horn is concealed under the bonnet, door handles are on the inside only and no side lamps break the contours of the forward end of the body.

In the headlights are small auxiliary lamps that fill the legal requirements of side lamps. Low body suspension and wide doors provide easy entrance and exit. Seating space is roomy.

The new features of the Winton Six are briefly summarized as follows: Lowered suspension of motor and body, lengthened piston stroke, left drive, with 18 inch steering wheel and centre control; clutch release increased, lengthened front springs, rear springs serve as radius rods, factor of safety in frame increased, tire inflation and increased starting pressure supplied by Kellogg pump, primer from cowl to intaks, and hot air tube to carburetor, cowl board carries speedometer, clock, coil, &c.; no side lamps; small auxiliary lamps in headlights serve instead; German silver radiator and nickelled metal parts.

DUMPS LOAD IN 30 SECONDS.

Power Operated Device on Alco Truck Works on New Principle.

A new power operated dump body built on an entirely new principle is announced by C. A. Benjamin, general sales manager of the Alco. Incidentally Mr. Benjamin reports the sale of two trucks of this type for road work in Georgia. According to Mr. Benjamin the Alco engineers applied an old locomotive principle to the motor truck. With this device for the first time applied to the motor truck the body can be raised to an angle of 65 degrees in less than fifteen seconds.

The lifting mechanism receives its power through a jaw clutch attached to the countershaft, which is extended through the gear box. The power is then transmitted through a worm gear and two sets of spur gears to a cross shaft at right angles to the frame. On each end of this cross shaft is a bell crank which is connected to a straight connecting rod attached to the body.

As the cross shaft revolves the bell crank moves upward, causing the connecting rod to raise the body. The body may be stopped and held at any height. Upon its return to the normal position the body automatically disengages the hoisting mechanism and closes the lock. A lever on the side of the driver's seat comprises the control, and when it is pulled forward the body is unlocked and the jaw clutch engaged.

The tail gate raises and lowers automatically and is designed so that a section of the lead is held back, permitting an even distribution of the load. The body can be raised with the truck in motion or standing still.

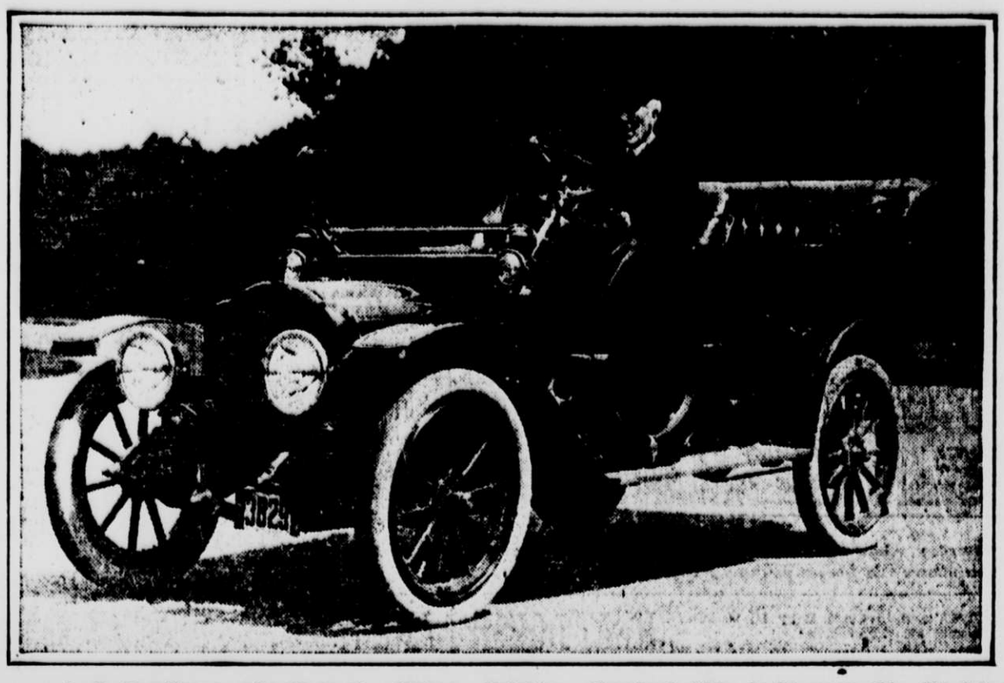
Hughes a Designer Now.

Hughie Hughes, the race driver, has become a designer and is being employed by Carden Green and J. B. Levy of Broken Arrow, Okla., to design a new Tulsa car. Green and Levy are wealthy oil operators and are making arrangements to build an automobile factory in Tulsa, Okla., when Hughes develops a car that suits them. Hughes is making Indianapolis his temporary headquarters.

To Sell Automobiles on Time.

Jesse Froehlich, vice-president of the Times Square Automobile Company, says that beginning to-morrow they are going to sell automobile trucks and pleasure cars on instalments. This is one of the first occasions in the history of the automobile industry that new cars will be sold at from 40 to 60 cents on the dollar, in addition to being sold on the easy payment plan.

84, Yet He'll Tackle Long Drive



A. B. Hambleton, who lives at Shaker Heights, Cleveland, Ohio, is 84 years old. He drives his new White touring car with ease and intends to pilot it on a tour to New York and Cape Cod in July.

MOTOR CAR EXPORTS HOLDING THEIR OWN

Only Slight Loss in April, Against High Water Month of March.

GREAT BRITAIN TAKES LESS

Marked Depreciation There—Imports Show a Falling Off Once More.

Automobile experts reached a high water mark for the year in the month of March and the April figures show only a slight loss. In April the total value of automobiles and parts exported was $3,469,891, as contrasted with $3,514,210 the month previous and with $2,726,500 for April, 1912. Automobile parts not including engines and tires exported during last April were valued at $565,667, and the total for April, 1912, was only $446,301.

The April, 1913, total value of both automobiles and parts was $3,469,891, and the total for the same month last year was $2,726,500. The figures for the ten months ending April, 1911, 1912 and 1913, show the steady march upward of the exports in good fashion. During the ten months ended April, 1911, the value of the automobiles and parts exported was $11,624,045; during the same period in 1912 it was $19,766,495; and in the same period this year it was $24,820,065.

Automobile tires jumped to $305,362 last April, from $194,132 in April, 1912. The ten months figures for 1911, 1912 and 1913 were $1,528,136, $2,063,603 and $3,115,279.

The tabulation of the number and value of the machines taken by the various countries shows gains in nearly every one, the notable exception being the United Kingdom, which shows a loss of 206 machines, having taken only 373, value $292,167, last April, as contrasted with 579, value $463,560, in April, 1912. A drop likewise is noticeable in the figures for the ten months ended with April. During this period in 1913 the United Kingdom took 3,120 automobiles, value $2,382,752, as against 4,716, value $3,765,765. This loss in trade with the country that formerly was second in the export table has attracted attention not only in this country but abroad. As usual, Canada is leading, having taken 1,048 cars, value $1,326,079, during last April.

Automobile motors showed a drop last April, only 954 motors being exported, as against 1,458 in April, 1912. The value increased, however, from $139,335 to $159,783. The ten months figures show a remarkable increase, from 5,773 motors, value $658,653, to 10,371 motors, value $1,581,700, this year's figures.

Leather for automobile use increased from $8,789 in April, 1912, to $10,615 in last April. Lighter fuels, including gasolene, were exported to the tune of 16,985,183 gallons, value $1,665,491 in April, 1912, and for last April the figures were 23,054,418 gallons, value $3,430,203. Of the latter figures 14,683,187 gallons were gasolene, valued at $2,029,787.

Imports of foreign automobiles fell off last April, when 44 cars, value $106,068, were imported, as against 59 cars, value $133,856, imported during April, 1912. The ten months figures show that the import tide that rose in 1912 is falling again. During the ten months ended April, 1911, cars to the number of 696, value $1,484,283, were imported. The figures for the same period in 1912 were 845 cars, value $1,867,495. This year the imports so far have dropped to 662 cars, value $1,540,127.

Imports of balls and bearings are also increasing, the value last April being $238,428, as against $157,150 in April, 1912. The ten months figures likewise show an increase, from $1,040,643 in 1911 to $1,187,136 in 1912 and $1,942,076 in 1913.

EVERYTHING'S AN ACCIDENT.

Massachusetts Motorists Have Fun With New Regulation.

Massachusetts automobilists by way of protesting at the State regulation requiring reports of accidents in which a car damages property are turning in statements of all sorts of petty things. Thus, running over a straw hat has been duly reported as an accident causing damage to property; so has backing into a post and denting a mudguard, and the mortality among chickens and dogs has been frightful. The board has been swamped with confessions.

There will be a back kick to this, however, for each happening is soberly recorded as an "accident" by the New England officials, and when the figures are published the total will be a dread one indeed. To a counting machine the death of a dog, a straw hat and a man all look alike.

MOTOR TRUCKS SAVE RAILWAY SHORT HAULS

And Thus Take a Burden Roads Are Willing to Shift to Power Wagons.

In times of rushing business when the railroads have more tonnage than they are able to move promptly the use of the high grade heavy duty motor truck for short haul work is coming to be an important factor which tends to facilitate the quicker movement of freight. Short haul business is not much sought by the railroads at any time and when the through business is very heavy as it was last fall when the country experienced a great shortage of freight cars the railroad managers welcome the relief afforded by the motor truck.

The rate charged by railroads for short haul business although higher per ton mile than on through traffic is scarcely sufficient to make up for the space occupied in stations by the goods and the labor of handling. When long haul business is available it is much more profitable. That is why the development of interurban truck business is good for the railroads.

There are a great many reasons why it is good for the truck owner. If a shipment is to be made to a town twenty miles away the goods may be put on the truck in the morning, the run to the destination made in from two to two and a half hours, and the goods unloaded at the purchaser's home or place of business. In the case of railroad shipment the goods are loaded onto a wagon, driven to a station, unloaded into the freight shed, loaded into the car, moved that night, perhaps, to the town which is the destination, unloaded into the freight shed, loaded into a wagon and unloaded at the purchaser's house.

The difference in efficiency between the two methods is so great that a mere statement of the case proves it. The truck does the work in a quarter of the time and at less expense.

For all these reasons many large business houses have adopted trucks exclusively for their short haul freight work. In Cleveland a large dealer in furniture and house furnishings makes all its deliveries to nearby Ohio towns with a Peerless truck. In Chicago a dealer in leather goods ships all goods to a distance of fifty miles by Peerless truck. In Fall River, Mass., a firm of draymen carry freight regularly at night to Providence and other nearby New England towns in a Peerless truck. Because of the density of population and the short distances between cities New England has developed this branch of motor trucking further than almost any other city in the country.

48 CARS IN COAST RACE.

Big Field Will Start in the Panama-Pacific July 4 Event.

George R. Bentel, the Pacific coast agent for Simplex cars, wires to John G. Dale of the Simplex Automobile Company of New York to say that forty-eight entries have been received to date for the Panama-Pacific road race to be run on July 4 from Los Angeles to San Francisco. This showing stamps the contests as one of the biggest racing events of the year. Twenty-six different makes of cars are represented, among them being three Simplex machines.

A novel scheme to help pay the expenses of running the meet is the system of tagging the spectators, who will wear buttons reading "Panama-Pacific road race—$25,000—I have paid, have you?" These buttons are to be sold for a dollar each. Many of the cars and drivers, which are to compete in the Western road race will be entered in the Galveston, Tex., beach meet, which is to be held July 28, 29 and 30.

Capt. J. W. Munn, who is managing the Galveston meet, will journey to the Pacific coast for the purpose of interesting the drivers there to come to Galveston to participate in the only beach meet of the year, for which nearly $7,000 in prizes is offered.

25 YEARS AGO HIS WAS FIRST AIR TIRE

Dunlop Inventor, Whose Device Has Made the Auto Industry, Tells Story.

DID IT TO PLEASE HIS SON

Just So as to Make His Tricycle Fast Enough to Beat Out Others.

The more than ordinarily interesting story of the pneumatic tire and its invention was told by John B. Dunlop, who was in the party of British automobile men recently in this country. Dunlop, although 74 years old, is strong and active. He is an Irishman and it was in Belfast twenty-five years ago that he devised the pneumatic tire, just to make a fast tricycle for his son, who wanted to beat the other boys.

How he came to build the tire and the steps he took is told in *Motor World*. Dunlop was a veterinary and his work was frequently interrupted by animal sick calls.

"I got the rubber from which I made the first tube in sheets from a firm in Edinburgh; it was one-thirty-second of an inch in thickness; to-day tubes are made of the same thickness; the dimension has never been changed. The sheet rubber I cut into a long strip and lapped over (demonstrating with a piece of paper) to form a tube. I had to shave down all the edges with a pocketknife, after which I spread the rubber cement on with my finger. Several times I was called away to relieve the misery of some animal while I was making this tube and as a result I had all my work to do over again, for the cement quickly became too dry to be useful.

"After I had completed the tube I doubled it around and before joining the ends I made a tiny hole and inserted through it a length of rubber tubing from a baby's feeding bottle. I then cemented the whole securely together and was compelled to leave it for several days to attend to my business. When I at length got back to tire making I stretched the tube over a circular disk of wood 15 inches in diameter and 1½ inches in width. I then covered the tube with a piece of linen—I remember distinctly that it was part of a lady's dress and was very fine in texture—which I tacked all around the periphery of the disk with very small tacks. I did not attempt to cement the linen to the tube, so that the whole tire was virtually a double tube tire, as it later came to be known. After I had tacked the linen securely in place I inflated the tire with my son's football pump.

"It was some time then before I finally had opportunity to test the tire, for as I said before I was very busy with my veterinary work. At length, however, I obtained a wheel of the same size as my wooden disk, equipped with a solid tire. I invited several persons who were interested in the tire to witness the tests, for I was convinced that the pneumatic would be much faster than the solid. I first rolled the pneumatic tired disk the length of the coach house; it brought up smartly against the doors at the further end of the coach house and rebounded a considerable distance.

"Afterward I rolled the solid tired wheel and it would scarcely go the length of the coach house. One of the gentlemen who witnessed the test was of the opinion that I must have used more force in rolling the pneumatic tired disk than I did in rolling the other, but after he had tried the experiment himself he had to admit that the pneumatic tired disk was the faster of the two.

"Having demonstrated to my own satisfaction that the pneumatic tire was faster than the solid tire, I decided to make a set of tires for my son's tricycle, and I sent on to Edinburgh for a fresh supply of rubber with which to make them. In making them I followed exactly the same procedure as I did in making the original tire. What with constant interruptions it took me three months to make the tires, and it was not until February 28, 1888, that they were ready to be tested; my son rode his tricycle out of the front door of the veterinary establishment at midnight of that day. There has been some dispute regarding the date, but I know I am right, for that night there was a partial eclipse of the moon, thus fixing the date indelibly on my mind. For some time after that I had my son ride his tricycle over the roughest roads he could find—and we have some pretty rough roads in Ireland, or we had at that time. He was delighted with it, because he found he could quite easily beat all the other boys in the neighborhood, and it was patent to all who saw it that the terrible vibration transmitted by the solid tire had been eliminated.

"I then set about making a set of tires for a safety bicycle and sent on to Edinburgh an order for some tubes complete. The manufacturer laughed at me; he said it was the most ridiculous thing he had heard of and that he could not furnish the tubes. But I wrote again and gave him a piece of my mind and in the end he at length consented to send me the tubes, though it was a long time before I received them. Meanwhile I had sent to a friend for some mild steel from which to make the rims, but he sent me very hard steel and when I attempted to bend it into shape it splintered. This set me back, for I had to write him again and beg him to send me exactly what I had asked for. At length I got it and with the aid of one of my assistants we bent it into shape, forming the beads with a couple of hammers. The tubes I made in the same manner as I had made the first ones except that I had only to join the ends. The outer casings were made of linen strips cut on the bias and cemented together. Later we discovered that linen was not suitable for the reason that the hard threads cut each other where they crossed; we changed to cotton and had no more trouble of the kind.

"It took me a long time to complete those first tires—there was no cement between the outer and inner tubes—and when at length they were completed I had my son test them.

"After the finished tires had been in use some time, I noticed that the air leaked out of them; I had a great deal of trouble with porosity. It seems that it was impossible for the manufacturer to eliminate all particles of dust and grit from the rubber, and though I suggested to him that he make the tubes of two sheets of rubber cemented together, he did not consider the suggestion worthy of attention. So I had to pump the tires up every morning. The original tricycle with the original tires on it is now in the Royal Museum at Edinburgh, to which institution I gave it. Thereafter for some time I was busily engaged in perfecting both the tires and the rims, and some time later I brought out and patented the first non-slipping tire. The original tire was patented in July, 1888."

CUTTING DOWN HIGH COST OF AUTO SHOWS

Exhibitors Are to Pay Less for Displaying Cars, Is the New Plan.

Automobile shows as given by the Automobile Chamber of Commerce, Inc., are to be run on a different basis from those conducted in the past by the National Association of Automobile Manufacturers and the Automobile Board of Trade. The next shows at New York and Chicago are to be managed on a cost system intended to reduce considerably the expense to the exhibitors, but that will yield no profit to either the Chamber of Commerce or to the Motor and Accessory Manufacturers, Inc. Inasmuch as a good part of the revenue for the treasury of the Motor and Accessory Manufacturers has in the past been derived from rebates on shows, the change will mean that the M. A. M. will have to raise its membership dues.

The Automobile Chamber of Commerce will aim to have each exhibitor pay his proportionate share of the exact net cost of giving the shows. The yearly membership dues of the M. A. M. by no means cover the pre ent fixed annual expense, but the profits from shows have heretofore enabled the association to enjoy a healthy cash balance. With show profits cut off, there is likely to be a deficit, unless expenses are greatly curtailed or the annual dues considerably increased. The former is by no means favored.

LOZIER CENSUS IS 1,141.

Houpt Discovers There Are That Many Owners Locally.

Harry S. Houpt has just completed a census of Lozier owners in New York and finds there are 1,141 of them. This, in his belief, ranks the Lozier third among the higher priced cars. He expects through the prevailing popularity of the Lozier Light Six to bring the Lozier up into second position inside of the next twelve months.

"I have personally gone over the list of Lozier owners and am fully convinced that no car has a more notable list than the Lozier," he said yesterday. "It includes leading bankers, brokers, corporation men, railroad men and wealthy athletes."

BRIDGE CONDITION DUE TO FREEZING

Wood Block Was Split Last Winter Following on a Warm Rain.

ROADWAY NOT REPAIRED

Reason for Present Poor Shape of Pavement Given by George A. Duck.

Regarding a statement that the roughness of the roadway on Queensboro Bridge is caused by excessively heavy trucking, George H. Duck, one of the local motor tradesmen, writes to THE SUN to say:

"As a matter of fact, the heavy trucking or other traffic has had very little to do with the condition of hills and valleys, which this roadway now presents. The real cause of this trouble may be traced to failure of builders to provide for the vicissitudes of climate and not to traffic conditions.

"During the last winter, upon one occasion, we had a comparatively warm rain which lasted for several hours, thus giving a chance for the interstices between the blocks to become filled with water. This rainstorm was followed by a very sharp, cold snap, at which time the water between the blocks froze and the enormous pressure exerted by the water in expanding to form ice raised up the roadway throughout practically the entire length of the bridge, in such a wal as to make traffic both difficult and dangerous.

"Frequenters of bridge transportation, during this period, will recall the red flags which decorated the many small mountain peaks and caused the roadway of the bridge to resemble a miniature golf course.

"If an investigation is made of the New York approach to the bridge, which receives as severe use as any portion of the roadway, it will be noted that the wooden blocks present scarcel yany sign of wear from the heavy traffic they have been compelled to endure.

"The roadway was never placed in proper condition following the upheavals of last winter; and I believe that it is unfair that the public should be allowed to remain under the impression that truck traffic is causing rapid deterioration of the bridge roadway and is responsible for the expense which will be incurred to put it into proper condition again."

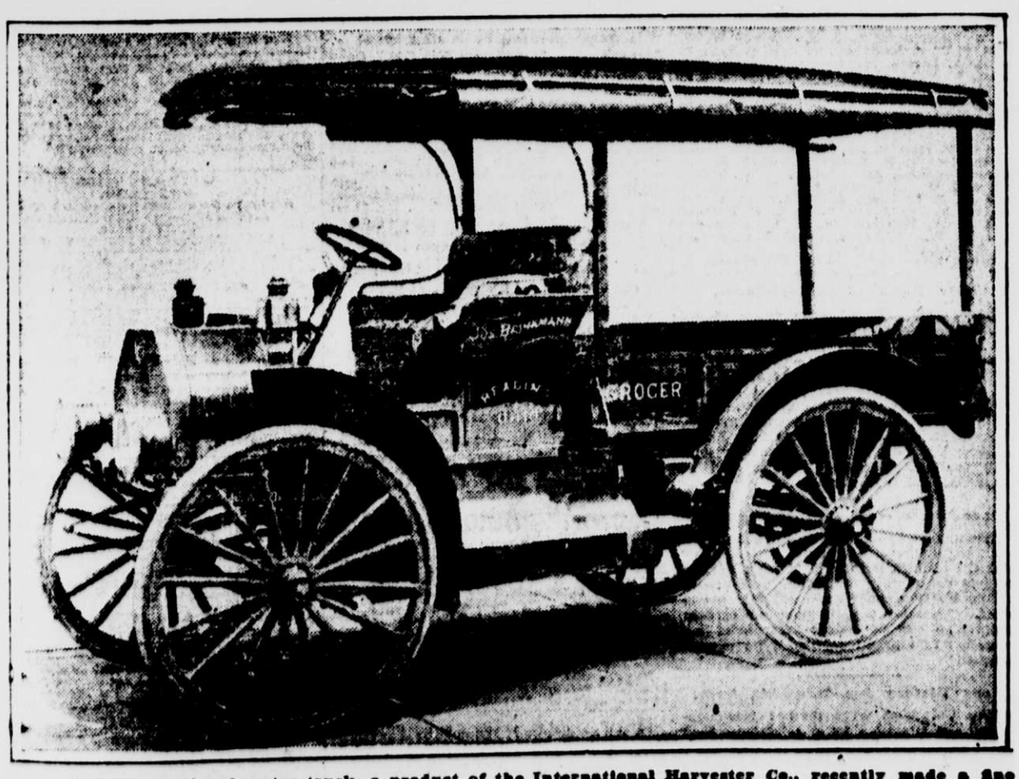
Chicago Territory for Hewlett.

E. E. Hewlett, the Los Angeles sportsman, who is prominent in the racing world, has acquired nearly all the Western territory for the sale of Fiat cars. Hewlett, who has been the agent in Los Angeles, has completed negotiations for the Chicago district, and now has those two cities as well as Seattle, San Francisco and Tacoma. Hewlett has made arrangements to specify Ajax tires on all the cars delivered to him hereafter.

Burman Has Chance to Meet Goux Again.

The Savannah Automobile Club, having the entry of Goux for the road races in November, will try to get Bob Burman to file his entry and so make a meeting of the two speed kings. Burman is now in Tacoma for the road race of July 4, but no difficulty is anticipated in the matter of entry for Savannah, as Burman is anxious to meet his European rival again.

International Produces Many Trucks



The International motor truck, a product of the International Harvester Co., recently made a fine showing in the Washington truck reliability run. Great economy and other points are claimed for this truck, which is being built in quantities.